

Date : Thursday, 16/08/2007 10:13:46 AM
 User : Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : AFT X-TUBE EXT HEIGHT(-013)
 Job Number : 33984
 Estimate Number : 10563
 P.C. Number : N/A Part Number : D205596107
 This Issue : 16/08/2007 S.O. No. : N/A Drawing Number : D205596107
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : LANDING GEAR Drawing Revision : A
 Previous Run : 32357 Material : N/A
 Written By : Due Date : 31/08/2007 Qty: 1 Um: Each
 Checked & Approved By :
 Comment : Est Rev:D 05.03.21 Added bending procedure KJ/JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



KS 07-08-27 (1)

Comment: DOCUMENT CONTROL

Photocopy D205-594 bluefile & type labels per PPP D205-596-107CHG001

6 07/10/10

2.0 D2890 Aft Crosstube



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D2890 Aft Crosstube 33977

EL 7-8-28

3.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Mark 20.30 for cutting from tangential line in the straight section from D2890 as per Dwg wall template.

EL 7-8-28

4.0 QC15 DIMENSIONAL CHECK OF X-TUBES



Comment: DIMENSIONAL CHECK OF X-TUBES

EL 07/08/28 (1)

5.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Cut as per Dwg D205-596-107

DP 7-9-19

2-Deburr & Inspect for surface damage. Polish cut surface. Scribe part # and batch # on one end of tube.

SP 7-9-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: AFT X-TUBE EXT HEIGHT(-013)

Job Number: 33984

Part Number: D205596107

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

En 26/02/04

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch up ends of the tube with Chemical Conversion Coat per QSI 005 4.1

50 7-9-24

8.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside with Immron per QSI 005 4.2

ml 07/09/30 (1)

9.0

QC14

INSPECT SPRAY PAINT



Comment: Inspect Spray Paint

En 07/10/04

10.0

D2856600

Abrasion Strip



Comment: Qty.: 1.6810 f(s)/Unit Total: 1.6810 f(s)

Pick:

Qty Part number

Description

Batch

2 D2856-600(10.09") Abrasion Strip

26650

ml 07/10/04

11.0

D29401

Support



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part number

Description

Batch

2 D2940-1

Support

32780

ml 07/10/04

12.0

MS2192028

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part number

Description

Batch

4 MS21920-28

Clamp

104423

ml 07/10/04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: FD Date: 9/18/11
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: AFT X-TUBE EXT HEIGHT(-013)

Job Number: 33984

Part Number: D205596107

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install abrasion strips per QSI 035 position using DT8582. Install supports and clamps per Dwg D205-596-107. Torque clamps to 80-100 in lb. Seal edges of support using Sikaflex

A/R Sikaflex -291

Expiry date:

08/01 M 105469

ml 07 10 04

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

ES 07/10/10

15.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-596-107

Location:

PPP Rev:

C 07/10/10

16.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

1
Datiolu

Job Completion



U 07-10-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

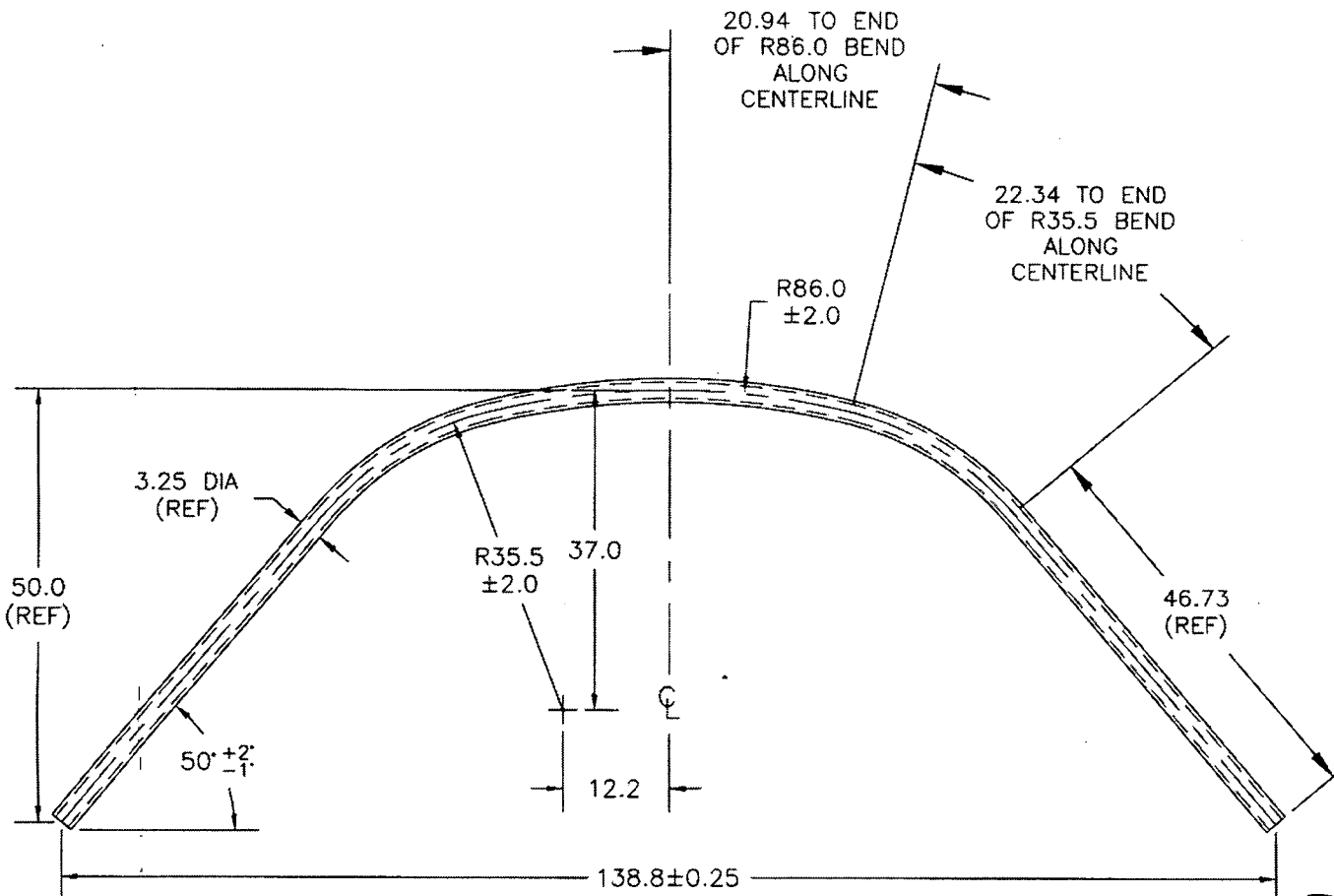
QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

DARTRELEASED
02.10.28

DESIGN		DRAWN BY		DART AEROSPACE LTD	
HAWKESBURY, ONTARIO, CANADA					
CHECKED		APPROVED		DRAWING NO.	REV. B
				D2890	SHEET 1 OF 1
DATE		TITLE			SCALE
02.10.18		AFT CROSS TUBE			1:20
A	99.05.21	NEW ISSUE			
B	02.10.18	ADD TANGENT LENGTHS: CHANGE NOTES			

**NOTES**

- 1) MATERIAL: MANUFACTURE FROM D6008-180 (ø3.25 OD x 0.438 WALL)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BEND PROGRESSIVELY WITH MINIMUM OF 3 PASSES
- 6) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

L Lacelle

From: Bill Beckett [bbeckett@dartaero.com]
Sent: August 15, 2007 7:23 PM
To: Linda Lacelle
Subject: Re: armor shield

Go for the 20-40. We will get confirmation of the product UV resistance in 3 weeks.
Bill
Sent from my BlackBerry device on the Rogers Wireless Network

-----Original Message-----

From: "L Lacelle" <llacelle@dartaero.com>

Date: Wed, 15 Aug 2007 14:59:40

To: "Bill Beckett \ (Bill Beckett\)" <billb@dartaero.com>

Cc: "*David Shepherd \ (*David Shepherd\)" <davids@dartaero.com>, "Mike Petsche"
<mpetsche@dartaero.com>

Subject: armor shield

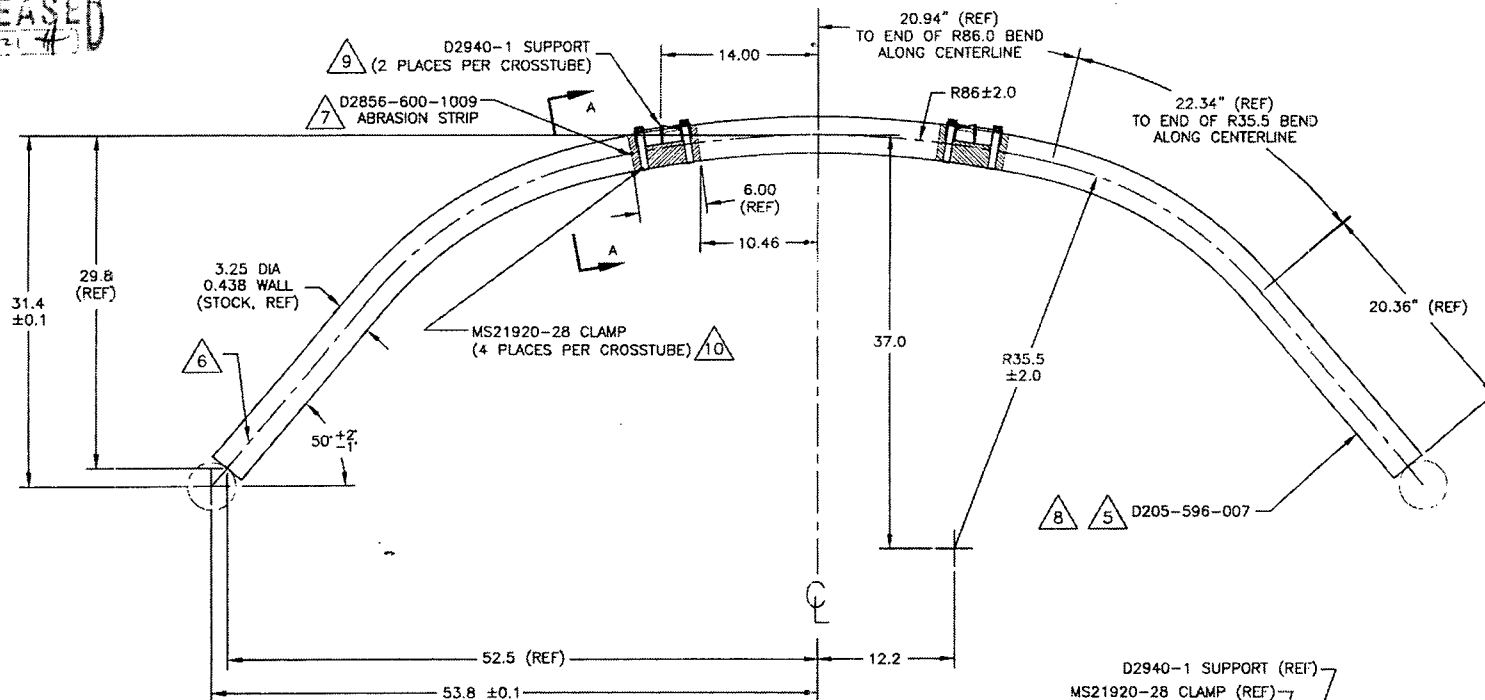
We currently have 2 pints of armor shield left. Bertrand (our supplier) now has 12 pints, and I can get these here quickly. They were talking to Proform, and they have more in stk in different places, but won't tell us how many. We can place an order for more, maybe 20-40 pints and have them here until we decide what our next move is, the shelf life is 1-2 yrs of what they have left (it's usually 2 yrs), and we currently have 4 crosstubes sold with armor shield.

Please let me know how you would like to proceed.

Thx

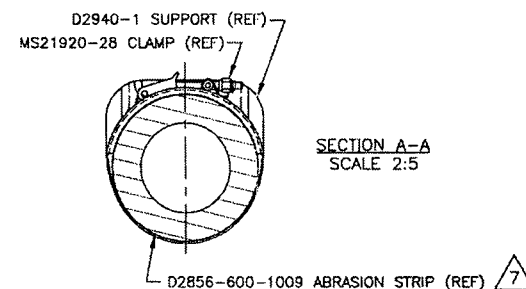
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RELEASED
02.11.20



GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) MATERIAL: MANUFACTURE FROM D6008-180
FINISHED LENGTH = 127.28
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 6) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS
- 7) INSTALL D2856-600-1009 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2940-1 SUPPORT, PER QSI 035
- 8) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 9) SEAL EDGES OF SUPPORTS USING SIKAFLEX-241/-291 SEALANT (OPTIONAL)
- 10) TORQUE CLAMPS 80 TO 100 IN-LB



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DESIGN	02.11.20		DART AEROSPACE LTD. <small>MARKHAM, ONTARIO, CANADA</small>
CHECKED	02.11.20		
DATE	02.11.20	DRAWING NO.	REV. A
		D205-596-107	SHEET 1 OF 1
		TITLE	SCALE
		CROSSTUBE AFT EXTENDED	1:10

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

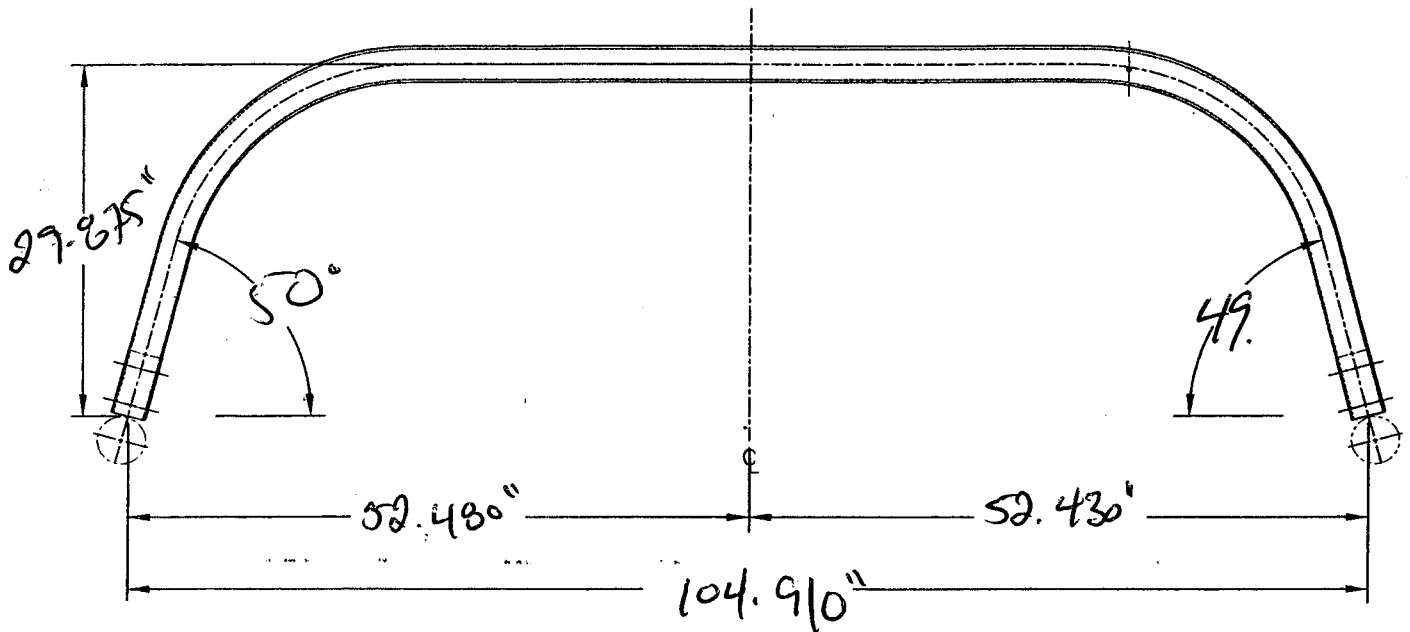
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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	
Description: Crosstube High-High Aft		Part Number:	D205-596-107
Inspection Dwg: D205-596-107 Rev: A		Page 1 of 1	

Required Dimension	Min	Max
Height	29.7	29.9
1/2 Span	52.4	52.6
Angle	49	52
Total Span	104.8	105.2



Comments
* mark cut line at 29.875.

QC15 Inspection	<i>[Signature]</i>
Date	07/02/20

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	